

Title (en)  
PHOTOACTIVE CATALYST COMPOSITIONS

Title (de)  
FOTOAKTIVE KATALYSATORZUSAMMENSETZUNGEN

Title (fr)  
COMPOSITIONS DE CATALYSEURS PHOTOACTIFS

Publication  
**EP 3507007 A4 20200429 (EN)**

Application  
**EP 17847526 A 20170831**

Priority  
• US 201662383146 P 20160902  
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Abstract (en)  
[origin: US2018067393A1] The present disclosure is directed to photosensitive compositions 'Fischer-type' ruthenium carbene catalysts containing chelated 2,2'-bipyridine ligands and methods of using the same. These catalysts are surprisingly active even when using relatively low intensity diode light sources. The 2,2'-bipyridine-chelated ruthenium photocatalysts show reactivity at substantially lower exposure levels than other photoactive chelating dinitrogen ligands of similar structure. The present disclosure is further directed to novel photosensitive compositions, their use as photoresists, and methods related to patterning polymer layers on substrates.

IPC 8 full level  
**B01J 31/16** (2006.01); **B01J 31/02** (2006.01); **B01J 31/06** (2006.01); **B01J 31/22** (2006.01); **B01J 35/00** (2006.01); **C08K 13/00** (2006.01); **G03F 7/00** (2006.01); **G03F 7/004** (2006.01); **G03F 7/027** (2006.01); **G03F 7/029** (2006.01); **G03F 7/095** (2006.01); **G03F 7/20** (2006.01)

CPC (source: EP US)  
**B01J 23/462** (2013.01 - US); **B01J 31/00** (2013.01 - US); **C07F 15/0046** (2013.01 - US); **G03F 7/0037** (2013.01 - EP US); **G03F 7/0042** (2013.01 - EP US); **G03F 7/027** (2013.01 - EP US); **G03F 7/029** (2013.01 - EP US); **G03F 7/095** (2013.01 - EP US); **G03F 7/20** (2013.01 - US); **G03F 7/201** (2013.01 - EP US); **G03F 7/2051** (2013.01 - EP US); **B01J 31/1815** (2013.01 - US); **B01J 31/2273** (2013.01 - EP US); **B01J 2231/543** (2013.01 - EP US); **B01J 2531/821** (2013.01 - EP US)

Citation (search report)  
[XA] WO 2014055720 A1 20140410 - CALIFORNIA INST OF TECHN [US]

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US12036078B2; WO2021072206A1; US11725077B2

Designated contracting state (EPC)  
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DOCDB simple family (publication)  
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**US 201715692229 A 20170831**; EP 17847526 A 20170831; JP 2019506429 A 20170831; US 2017049540 W 20170831; US 202016784790 A 20200207